

CLAIMS

1. Method for establishing a co-ordination connection (40) between a first and a second control centre (10, 12) for carrying out services in an intelligent telecommunications network (4),
the first and the second centres each being capable of processing in an autonomous manner a first and a second service request, respectively, and the network comprising, in addition to communication channels (30, 32, 36, 38) used to establish telecommunications connections between various terminals which are connected to the network, communication channels (20, 22, 24) which are reserved for conveying call control signals for controlling the establishment, the modification and/or the release of each telecommunications connection in this network (4),
this method comprising a step for processing a call which is initiated each time a call is transmitted by a client and which comprises a step (86) for establishing the co-ordination connection using an address of at least one of the two centres (10, 12) so that these centres can co-ordinate their respective operations for processing the first and second service requests from the client characterised:
 - in that one of the centres transmits its address to the other centre by inserting (at 78) this address in one of the call control signals transmitted to the other centre, and
 - in that the centre having received the address inserted in a call control signal establishes (at 86) the co-ordination connection by using communication channels which are separate from those used to convey the call control signal in which the address of one of the centres is inserted.

2. Method according to claim 1, characterised in that when a plurality of call processing steps are carried out simultaneously for different clients of the network (4), the centre which inserts (at 78) its address in the call control signal further inserts an identifier for the call processed, and in that the first and second centres (10, 12) for carrying out services indicate (at 90) the call concerned by means of the co-ordination data transmitted via the co-ordination connection by using this identifier so as to co-ordinate their respective processing operation for each call.
3. Method according to either of the preceding claims, characterised in that only the co-ordination connection (40) is used to exchange co-ordination data for the respective operations for processing the first and second service requests carried out by the two centres (10, 12) for carrying out services.
4. Method according to any one of the preceding claims for a network, in which the call control signal comprises at least one address field which is capable of receiving the network address of the second centre, this field further comprising a portion which is not used when the address of the second centre is recorded in this field, characterised in that the address of the first centre and/or the call identifier is/are inserted in the unused portion of the address field so that these data are propagated jointly via the network to the second centre (12).
5. Method according to any one of the preceding claims for a network in which the first and second centres (10, 12) are connected to different control points (6, 8) of the network, the control points of the network being capable of connecting

the various communication channels to each other in order to form the telecommunications connections, characterised in that:

- the first centre (10) and the second centre (12) communicate with their respective control point (6, 8) by using a first communication protocol for receiving and/or transmitting the call control signals,
- the various control points (6, 8) of the network communicate with each other by using a second communication protocol which is different from the first for transmitting and/or receiving the call control signals, and
- the first and second centres communicate with each other via the co-ordination connection (40) by using a third communication protocol which is different from the first and second communication protocols.

6. Method according to claim 5, characterised in that the first communication protocol is the INAP protocol (Intelligent Network Application Protocol), and in that the second communication protocol is the ISUP protocol (Integrated Service Digital Network - User Part).

7. Method according to any one of the preceding claims for a network, in which the first and second centres (10, 12) are connected to different control points (6, 8) of the network, the control points of the network being capable of connecting the various communication channels to each other in order to form the telecommunications connections, characterised in that

- the first centre (10) and the second centre (12) communicate with their respective control point (6, 8) by using a first communication protocol for receiving and/or transmitting the call control signals,

- the various control points (6, 8) of the network communicate with each other by also using the first protocol, and
- the first and second centres communicate with each other via the co-ordination connection (40) by using a second communication protocol which is different from the first communication protocol.

8. Method according to claim 7, characterised in that the first communication protocol is the SIP protocol (Session Initiation Protocol).

9. Intelligent telecommunications network which is capable of establishing a co-ordination connection (40) between a first and a second control centre (10, 12) for carrying out services, this network comprising:

- the first and second centres, these centres each being capable of processing in an autonomous manner a first and a second service request, respectively,
- communication channels (30, 32, 36, 38) which are used to establish telecommunications connections between various terminals which are connected to the network, and
- communication channels (20, 22, 24) which are reserved for conveying call control signals in order to control the establishment, the modification and/or the release of each telecommunications connection for this network,

this network being capable of carrying out a step for processing a call which is initiated each time a call is transmitted by a client and which comprises a step (86) for establishing the co-ordination connection using an address of at least one of the two centres (10, 12) so that these centres can co-ordinate their respective operations for

processing the first and second service requests from the client

characterised:

- in that one of the centres is capable of transmitting its address to the other centre by inserting (at 78) this address in one of the call control signals transmitted to the other centre, and
- in that the centre having received the address inserted in a call control signal is capable of establishing (at 86) the co-ordination connection by using communication channels which are separate from those used to convey the call control signal in which the address of one of the centres is inserted.

10. Network according to claim 9, characterised in that when a plurality of call processing steps are carried out simultaneously for different clients of the network (4), the centre which inserts (at 78) its address in the call control signal is capable of further inserting an identifier of the call processed, and in that the first and second centres (10, 12) for carrying out services are capable of indicating (at 90) the call concerned by means of the co-ordination data transmitted via the co-ordination connection by using this identifier so as to co-ordinate their respective operations for processing each call.

11. Network according to either claim 9 or claim 10, characterised in that the first and second centres are suitable for using only the co-ordination connection (40) to exchange co-ordination data for the respective operations for processing the first and second service requests carried out by the two centres (10, 12) for carrying out services.

12. Network according to any one of claims 9 to 11, in which the call control signal comprises at least one address field which is capable of receiving the network address of the second centre, this field further comprising a portion which is not used when the address of the second centre is recorded in this field, characterised in that the first centre is capable of inserting its address and/or the call identifier in the unused portion of the address field so that these data are propagated jointly via the network to the second centre (12).

13. Network according to any one of claims 9 to 12, comprising control points (6, 8) to which the first and second centres (10, 12) are connected, respectively, the control points of the network being capable of connecting the various communication channels to each other in order to form the telecommunications connections, characterised in that:

- the first centre (10) and the second centre (12) are capable of communicating with their respective control point (6, 8) by using a first communication protocol for receiving and/or transmitting the call control signals,
- the various control points (6, 8) of the network are capable of communicating with each other by using a second communication protocol which is different from the first for transmitting and/or receiving the call control signals, and
- the first and second centres are capable of communicating with each other via the co-ordination connection (40) by using a third communication protocol which is different from the first and second communication protocols.

14. Network according to claim 13, characterised in that the first communication protocol is the INAP protocol (Intelligent Network Application Protocol), and in that the

second communication protocol is the ISUP protocol (Integrated Service Digital Network - User Part).

15. Network according to any one of claims 9 to 12, comprising different control points (6, 8) to which the first and second centres (10, 12) are connected, respectively, the control points of the network being capable of connecting the various communication channels to each other in order to form the telecommunications connections, characterised in that:

- the first centre (10) and the second centre (12) are capable of communicating with their respective control point (6, 8) by using a first communication protocol for receiving and/or transmitting the call control signals,
- the various control points (6, 8) of the network are capable of communicating with each other by also using the first protocol, and
- the first and second centres are capable of communicating with each other via the co-ordination connection (40) by using a second communication protocol which is different from the first communication protocol.

16. Network according to claim 15, characterised in that the first communication protocol is the SIP protocol (Session Initiation Protocol).

17. Control centre for carrying out services which is suitable for being used in an intelligent telecommunications network according to any one of claims 9 to 16, characterised in that the centre is capable of transmitting its address to another centre by inserting (at 78) this address in one of the call control signals transmitted to the other centre.

18. Centre according to claim 17, characterised in that it is capable of further inserting an identifier of the call processed, and in that it is capable of indicating (at 90) the call concerned by means of the co-ordination data transmitted by means of the co-ordination connection by using this identifier in order to co-ordinate its processing operation with that of another centre for each call.
19. Centre according to claim 17 or 18, which is suitable for being used in a network according to claim 12, characterised in that the centre is capable of inserting its address and/or the call identifier in the unused portion of the address field, so that the data are propagated jointly via the network to the second centre.
20. Centre which is suitable for being used in a network according to any one of claims 9 to 16, characterised in that it is capable of receiving the address inserted in a call control signal and establishing (at 86) the co-ordination connection by using communication channels which are separate from those used to convey the call control signal in which the address of one of the centres is inserted.
21. Centre according to any one of claims 17 to 20, characterised in that it is suitable for using only the co-ordination connection (40) to exchange co-ordination data for the respective operations for processing the first and second service requests carried out by this centre and the other centre.
22. Centre according to any one of claims 17 to 21, which is suitable for being used in a network according to claim 13, characterised in that it is capable of communicating with the

respective control point thereof by using the first communication protocol for receiving and/or transmitting the call control signals, and communicating with the other centre by means of the co-ordination connection (40) by using the third communication protocol which is different from the first and second communication protocols.

23. Centre according to any one of claims 17 to 22, which is suitable for being used in a network according to claim 15, characterised in that it is capable of communicating with the respective control point thereof by using the first communication protocol for receiving and/or transmitting the call control signals and communicating with the other centre via the co-ordination connection (40) by using the second communication protocol which is different from the first communication protocol.